

Mech

Winter 2009-10

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All Jacked Up

**Guillotine? Or,
Gilleytine?**

***"FAST EDDIE"*
on the Move**



**The Navy & Marine Corps
Aviation Maintenance Safety Magazine**
WINTER 2009-10, Volume 49 No. 1

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Mishaps cost time and resources. They take our Sailors, Marines and civilian employees away from their units and workplaces and put them in hospitals, wheelchairs and coffins. Mishaps ruin equipment and weapons. They diminish our readiness. This magazine's goal is to help make sure that personnel can devote their time and energy to the mission. We believe there is only one way to do any task: the way that follows the rules and takes precautions against hazards. Combat is hazardous; the time to learn to do a job right is before combat starts.

Mech (ISSN 1093-8753) is published quarterly by Commander, Naval Safety Center, and is an authorized publication for members of the Department of Defense. Contents are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense, or the U.S. Navy. Photos and artwork are representative and do not necessarily show the people or equipment discussed. We reserve the right to edit all manuscripts. Reference to commercial products does not imply Navy endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author. Periodicals postage paid at Norfolk, Va., and additional mailing offices.

POSTMASTER: Send address changes to Mech, Naval Safety Center, 375 A Street, Norfolk, VA 23511-4399.

Send articles, BZs and letters to the address above, or via e-mail to the Mech staff, SAFE-Mech@navy.mil. Visit us on-line at www.safetycenter.navy.mil.

Features

2 Bad Maintenance Is a Drag

That pin was installed, right?

By AO2(AW) Adam White, VFA-41

4 "Fast Eddie" on the Move

Think you've seen it all? Probably not.

By ADC(AW) Christopher Forster, VFA-146

5 Game Over: Time to Hit the RESET Button

Working on aircraft while under the influence isn't a game.

By AT2 Zachary Sneddon, HSL-49

6 All Jacked Up

Using the wrong equipment produces "down" jets.

By AM2 Allen James, VFA-86



8 Guillotine? Or, Gilleytime?

A finger, a "WOW" port, and a guy named Gilley.

By ADCS(AW) James Gilley, VFA-37

10 Fuel Shower in Paradise

How eight gallons became 50.

By ATC(AW) David Steiner, VFA-192

12 The Hazards of a Green Deck

Vigilant prop guard saves the day.

By AM2 John Curtis, VAW-123

13 The Risk of the Routine

A tie-down chain to the grill results in an atypical FOD walkdown and some valuable lessons learned.

By AT2 David Noble, HSL-49

14 AME3 vs. an 800-Pound Gorilla

In this case, the "L" in LOX stands for LIMDU.

By AME3 Ryan Tull, VAW-112

18 A Painful Reminder

Almost another guillotine article . . . almost.

By AE3 Christopher Loff, VFA-2

Departments

16 Maintainers in the Trenches

A pictorial homage to the people who keep aircraft flying.

20 Air-Wing Toolbox: New Automatic Test Equipment for Marine Corps Maintainers

RTCASS is here, and it's coming to a MALS near you.

By Rob Koon, NAVAIR

22 Bravo Zulu

HSC-22, HSL-43, VAW-117, VFA-115, VR-46, HMH-363, VP-4, and VP-45



Sailors assigned to VP-5 inspect the flight line in front of hangar 511 at NAS Jacksonville for FOD. Navy photo by MC2 Harry J. Rucker III.

26 Crossfeed

Maintenance experts talk about storing consumables, the upcoming aviation-maintenance safety conference, battery safety, NAMP change No. 2, technical directives, storage sheets, and Class C mishaps.

32 Mishap Stats

IBC Sierra Hotel

Commands that have completed surveys, culture workshops, and MRM presentations.


Front cover: Sailors aboard the aircraft carrier USS *Dwight D. Eisenhower* (CVN-69) conduct the last launches of the Composite Training Unit Exercise (COMPTUEX). Navy photo by MC3 Christopher A. Baker.

Bad Maintenance



Is a Drag

By AO2(AW) Adam White



We were one day out after a port call in Yokosuka, Japan. I was a CDI on night check. Everyone on the shift was tired, and most of us wished we were still in port. Work was the last thing on our minds. After telling a few in-port stories, we got down to the business of preparing aircraft for the next day's flight schedule.

One of the night's tasks was to install a station-8 SUU-79 pylon on aircraft 102—an easy task we'd done numerous times. After the maintenance meeting, we checked out our tools and pubs and headed down to the hangar bay. Aircraft 102 was our first priority. It had been the "hangar queen" for a few weeks, and Maintenance Control wanted it up for the next day's flight schedule. In addition to the pylon installation on station 8, we had to install a few pylons and bomb racks on other stations.

We started by placing the pylon underneath the station. An SUU-79 weighs approximately 360 pounds—light enough for four people to carry, but only for short distances. I told the crew to position themselves so that two lifted the front and two lifted the back. I then told them to lift the pylon evenly onto the aircraft-wing station. After a few tries, the crew had positioned the pylon correctly on the wing. I locked the forward hook on the pylon and screwed in the safety lock.

Next, we installed the aft pin. As I observed, one of the crew members lifted the aft section of the pylon, while another installed the aft pin. We then checked the pylon by shaking the front of it and by tightening the pylon sway-pad. I then mated the pylon electrically to the wing of the aircraft. All doors were secured, tools were checked, and the crew went to the shop to sign off the MAFs.

Aircraft 102 flew the next day. Shortly after launch, during a G-awareness maneuver, the station-8 pylon came loose at its aft attachment point and pivoted on the forward attachment point. As a result, the aft end of the external fuel

tank hit the LAU-116 installed on station 7, and the nose hit station 9.

The pylon's rotation severed the electrical, fuel and air connections between the pylon and the aircraft, preventing the transfer of fuel and making it impossible to jettison the tank. The position of the tank (perpendicular to normal airflow) also increased the drag of the aircraft beyond the scope of the bingo performance charts, placing the aircraft in a configuration that never had been flight-tested.

The outcome could have been catastrophic; the pilot easily could have lost control. Fortunately, the pilot was extremely skilled and diverted to an airfield 150 miles away. Superb crew-resource management between the aircrew and squadron representatives aboard USS *Nimitz* (CVN-68) allowed for a safe recovery ashore.

BASED ON THE WAY the pylon shifted during flight, there was only one possible cause: The aft pin hadn't been installed. Looking back at the maintenance work the night before, I realized that when I had "observed" the pin installation, I hadn't verified the installation and security before securing the door.

As a CDI, you are taught to pay close attention to detail and to check everything. I failed in this regard. This incident could have killed two people. I knew that everything I did as a CDI was very serious. But, the possibility of losing two lives shocked me to my core.

As CDIs and maintainers, we have a responsibility to the aircrew to complete every task (no matter how simple or redundant it may be) with attention to every detail and vigilance to any deficiency. This incident has changed my career and life forever. Before, work was just work. Now, there's a face on every job I do. I am more dedicated to doing the very best I can on every task. 🌿

Petty Officer White works in the ordnance shop at VFA-41.



"FAST EDDIE" ON THE MOVE

By ADC(AW) Christopher Forster

It was only our tenth day of cruise, but the squadron seemed to be operating flawlessly on the flight deck. The weather was sunny, with gusty winds. I was standing next to the unmanned, spare aircraft parked aft of the No. 4 elevator on the finger when I received a call over the radio that a pilot would be manning that jet. As I surveyed the flight deck, it was obvious that we were beginning to recover aircraft.

While waiting for my pilot, I leaned against the starboard side of the aircraft—just aft of the nose cone—and watched the recovery. The wind seemed to pick up and swirl around in different directions. As aircraft landed, there was one particular pass I never will forget.

I watched an approaching jet quickly drop out of the sky and touch down aft of the No. 1 wire and left of centerline. The aircraft caught the No. 1 wire and continued down the landing area (LA); I lost sight of it behind another jet on the finger.

I continued to lean against the spare when suddenly I heard the Air Boss yell over the 3MC: "Look out, 'Fast

Eddie' on the move!" Hearing this, I knew something was wrong. I took a step forward and looked under the nose of the aircraft just in time to see "Fast Eddie" coming right at me. I jumped backward immediately, as "Fast Eddie" flew by and crashed into a stack of tow bars stowed against the scupper just forward of the LSO platform.

"Fast Eddie" is a 3-foot long, 50-lb metal cover shaped like a teardrop. It covers the No. 3 catapult shuttle during recoveries. The landing aircraft's exhaust had blown it off the shuttle, propelling it down the LA and nearly hitting the jet and me. If it had struck me, my lower legs could have been injured severely.

Situational awareness is crucial to all hands operating on the flight deck. Situational awareness (courtesy of the Air Boss' 3MC call) and my alertness and quick reaction saved me. No matter how much experience you have, you haven't seen it all. ✦

Chief Forster is the line division LCPO at VFA-146.

Game Over: Time to Hit the RESET Button

By AT2 Zachary Sneddon

Tackling a mission without a plan is a recipe for disaster. As maintainers, we are taught to plan and prepare for every evolution with ORM in mind. Risk management is preached ad nauseam. We hear it so often that it should be second nature. Sometimes, however, we fail to plan and manage risk when not on the job, and this is how I found myself waking up on top of the oil-cooler access doors of Red Stinger 101.

Our ship spent a multi-day port visit in Singapore. Though I could have stayed in a local hotel, I thought it best to save some money and return to the ship. Besides, I didn't feel the need to go partying with fellow Sailors. "Why go out and spend money on entertainment when I own an Xbox 360 and a number of games?" I thought. I hadn't had a chance to play the games much, so staying within the safe confines of the ship presented a perfect opportunity to recoup and stay out of trouble.

If I had practiced ORM, I might have foreseen the effects of sleep deprivation and managed my downtime better. Instead, I stayed up and played video games for almost 48 hours before my duty day. It never crossed my mind that doing this could be dangerous. After all, what did I have to do on duty? We had no flight schedule or heavy maintenance pending. A daily inspection was the only thing on my plate. What could go wrong? We do those all the time. I could do "dailies" in my sleep—or so I thought.

I STARTED MY inspection by checking the service and inspection points in the hydraulics bay, then worked my way aft. I lay down on my back atop the oil-cooler access to inspect the droop stops and rotor-system hardware. It was a hot, muggy day, and I had slept only three hours within the last 48. I was sluggish; the gentle sway of the aircraft made my eyelids heavy.

I don't know how long I had been asleep when I felt the aircraft wobble from someone climbing up to check on me. I sheepishly bolted upright.

In retrospect, I definitely should not have stayed up two nights in a row playing Xbox. Being drunk on duty is highly unsafe and punishable by the UCMJ. But having deprived myself of sleep for two days was just as dangerous. Had I rolled over in my sleep, I easily could have dropped several feet to the nonskid below, possibly catching a tie-down chain or other piece of gear. A fall like that would have put me out of commission. Had I kicked or flailed about (perhaps in an Xbox-induced dream), I could have damaged the upper IRCM mount, exhaust ejectors, or rotor-blade trim tabs, costing the Navy both time and money.





aircraft, we know a lot about how people respond to lack of sleep. The enclosed figure is a theoretic analysis of his predicted level of effectiveness at the time of his incident, using the Fatigue Avoidance Scheduling Tool (FAST), a computer program developed to predict performance, based on sleep and duty cycles.

For someone who got only three hours of sleep in the previous 48 hours, he would be predicted to be at about 58 percent of his baseline performance level when well-rested, with three red flags showing (in the figure) because of chronic sleep debt, lack of recent sleep, and being continuously awake for more than 16 hours.

I was lucky to escape the incident with only a counseling chit and a valuable lesson learned. In hindsight, my decision to participate in a gaming marathon was just as irresponsible as if I had gone out on a pub crawl before my duty day. Just because I didn't have any alcohol didn't mean I was safe to work on aircraft.

Petty Officer Sneddon works in the AT shop at HSL-49.

Analyst comment: Although we don't know Petty Officer Sneddon's fatigue level at the time he fell asleep on the

a 70-percent level is as impaired as someone at a blood alcohol level of 0.08 percent, **which is legally drunk in all 50 states.** Sneddon's 58 percent would have been even worse. Going on duty in a fatigued state is like working drunk—not a very good idea.

For more info on fatigue, visit the NSC website at <http://www.safetycenter.navy.mil/aviation/Fatigue/index.asp>

Capt. Nick Davenport is the head, aeromedical division, Naval Safety Center.

All Jacked Up

By AM2 Allen James

We were in the middle of work-ups, and our op tempo was high. As an East Coast squadron, conducting work-ups with a West Coast air wing, the logistics were challenging and left little time to complete planned maintenance.

Our maintenance department split forces during the detachment to NAS Fallon. The stay-behind crew did the work on a few of our jets, while the rest of the

squadron completed the work-up training evolution in Fallon. I was part of the stay-behind crew.

One of the worst days of my life began, as usual, with a morning maintenance meeting. The chief just had put out his priorities; a 364-day inspection was one of them. "No big deal," I thought. I had done plenty of these inspections before, and I knew what needed to be done.

I went back to my shop to review the MRCs, to



Gear door actuator (main-landing-gear)

verify every inspection, and to prioritize my workload. After deciding that the planing-link bolts and the side brace had to be inspected first, we jacked the aircraft. This evolution went safely and expeditiously. I quickly—too quickly—thought, “This is going to be an easy 364-day inspection.”

We started with the side brace and then removed everything we needed to in order to inspect the bearings

and attach point. Everything checked “good,” and we reinstalled the side braces. My next task was to inspect the planing-link bolts. Two of these bolts were cracked, and the other two were corroded badly. I told the chief about the bolts and placed them on order. Unfortunately, no bolts were on station, so we were at a standstill until further notice.

I was in the shop, signing off MAFs, when the chief told me new bolts would be coming in on an airlift later that day, probably around 2100. With that late arrival, I thought the job could wait until the following day. The chief, however, wanted the evolution completed and the jet off jacks. “It’s late, and I’m a little tired,” I thought, “but we can get it done.”

We put the planing links back together, and everything was ready to go. I hooked up the hydraulic jenny and attached the power cord. Everyone was in place to “swing” the landing gear. Just as we were ready to start that task, I realized that I didn’t have any door pins to “check-rig.” Looking up, I saw the wing-fold pins and wondered if they would fit. I removed them and stuck them in the main-landing-gear door actuator. To my surprise, they fit perfectly and held the doors open.

NEXT, WE TURNED on power and started the hydraulic jenny. I told a technician in the cockpit to put the landing-gear handle in the “Up” position. I then told the jenny operator to increase hydraulic pressure slowly, so the landing gear would retract the same way. I watched the landing gear go up—everything cleared. But then, just as I was turning to the jenny operator, the doors closed. I thought the pins had come out. I told the technician in the cockpit to drop the landing gear, so I could see what had happened. When I went in for a closer look, I found a cracked bracket. It was one of the worst feelings I’ve ever had.

I misperceived the pressure that the entire maintenance department was feeling in trying to manage maintenance requirements in a challenging environment. I wanted more than ever to help. My intentions were good: I wanted to get the job done. However, I should have told the chief that I didn’t have all the required support equipment to complete the task.

Instead of helping my squadron produce “up” jets, I had cost the command a valuable asset. The bracket had to be remanufactured, and we had to borrow a jet from another squadron to meet the command’s training requirements.

No matter how badly you want to get a job done, using the wrong equipment is never a good idea. 🙄🔧

Petty Officer James works in the airframes shop at VFA-86.

Guillotine? Or, G

By ADCS(AW) James Gilley

Night shift had been working longer-than-normal hours in preparation for our upcoming deployment in support of Operation Iraqi Freedom. Deployment was only six days away. The night started like any other, with a maintenance meeting at 1600. The airframes work center's No. 1 priority that night: Install the nose-landing-gear strut on aircraft 306, an FA-18C.

Night shift was supposed to secure at 0300, so I left maintenance control around 0230 to check on the progress of the four aircraft we had on jacks in the hangar bay. After checking them, I realized we were not going to leave as scheduled—a lot of work remained.

Aircraft 306 had been placed on jacks, awaiting a nose-landing-gear strut to come in from supply. Earlier in the shift, the airframes work center had installed the nose-landing-gear strut and its major components. The

electrician shop needed to install the nose-landing-gear harness and weight-off-wheels (WOW) switch. The AEs were in the process of doing this when I approached the jet.

I noticed three of my junior AEs were having trouble removing the plug that had been installed in place of the WOW switch during shipping. I sent a technician to the airframes shop to get a different tool because the one they were using kept getting hung up on the chain tie-down point. While I was waiting, I picked up the breaker bar and a crow's foot and started to loosen the plug myself. As a seasoned maintenance chief, I thought there was no way the plug could be that tight.

I positioned the breaker bar and crow's foot at a different angle than my technician had used and removed the plug with little difficulty. I assumed that the nose strut had been de-serviced because airframes



Navy photo by PHAN Ryan O'Connor

Gilleytime?



had been working on it earlier in the shift. But as we all know, when you assume something has been done (and don't ask to be sure), things can go wrong.

Just as I unscrewed the last thread of the plug, hydraulic fluid and nitrogen shot out, soaking the right sleeve of my coveralls, my T-shirt, and my face. Instinctively, I moved to the left and placed all four fingers of my right hand flat against the strut, covering the port for the WOW switch and preventing hydraulic fluid from spraying everywhere. I looked at one of my technicians and told him to get a drip pan.

I took one step back and, turning my head to the right, told the technicians to get some diapers to clean up the hydraulic fluid that now was pooling on the hangar-bay floor. What I didn't realize as I took the step back was that, inadvertently, I had slid my right index finger into the WOW port. At that very moment, I heard the strut's inner cylinder bottom out, making that "Shink!" sound, like a guillotine. The inner cylinder had bottomed out because of the pull of gravity from the release of the hydraulic fluid and nitrogen.

It felt like someone had flicked me on the finger with a pencil. I turned to look and realized immediately that my right index fingertip no longer was attached to my right hand. I made sure the technicians continued with the hydraulic-fluid cleanup, and I told one of the airframers to get the compression dolly and an adapter to push up the nose-landing strut to retrieve my fingertip.

ONE OF THE TECHNICIANS brought me some cheese-cloth, so I could wrap up my finger. I then went inside to QA and told one of the QARs to call 911. While I was in QA, the technicians retrieved my fingertip (using a pair of needle-nose pliers) and put it on ice in a plastic bag. While I was waiting in the hangar for the ambulance to arrive, I was in no pain, but I definitely was mad at myself and a little embarrassed, too, for doing something so stupid. I finished signing off a few MAFs and put everyone back to work because we still had many aircraft needing repair. The ambulance showed up and took me to Naval Hospital, Portsmouth, where doctors reattached my fingertip.

The time in the ambulance gave me a chance to reflect on this incident and how it came to be. We were focused on completing maintenance tasking expeditiously, so we could secure and get home to our families—after all, we were close to deployment. Complacency and a lack of communication between the night-shift supervisors and me led to assumptions (including my own) about the status of the strut. Improved supervision by all work centers involved could have kept this chain of events from playing out... at the expense of my fingertip. ✚

Senior Chief Gilley was a night-shift maintenance chief for VFA-37.

An aerial photograph of the Sunshine Skyway Bridge, a long, multi-lane bridge spanning a vast body of water. The bridge features a series of tall, white, A-frame piers supporting the roadway. The water is a deep blue, and the sky is a lighter blue. The bridge curves gently into the distance.

Fuel Shower (and No Cheeseburger) in Paradise

By ATC(AW) David Steiner

It was a sunny fall day on the flight line at NAS Key West. I was an ambitious and eager PO3 on a good-deal detachment for three weeks of fun in the sun and as much flying as the ops department could squeeze in.

We spent almost every moment of the long workdays getting the jets ready to fly, fixing the ones that came back broken, and trying to keep up with the daily tasking from Maintenance Control. As each day passed without incident, we started to get more relaxed, and we settled into the routine of the det.

Being a relatively new petty officer, I had little control over my tasking. Nonetheless, I was determined to prove that I was up to each and every task. Each day on det, I learned something new about our aircraft and about how to fix them. Getting the job done the first time, on time, was my practice; part of that included adapting to and overcoming any obstacles thrown in my path. The obstacle that gave me the most trouble was an NC-8 cart in need of fuel.

A little after 1600, Maintenance Control tasked me to run up an aircraft radar, to see if a problem code had cleared. This aircraft was scheduled to fly in about an hour. As I did my pre-op of the NC-8, I realized its fuel tank was almost empty. A quick calculation told me it would take an hour or so to get the NC-8 out to the SE fuel-station and back to the aircraft to run up the radar. I realized I didn't have enough time to fuel the NC-8 before the aircraft's scheduled departure.

Not wanting to cause a missed flight, I quickly checked around for another power cart. Unfortunately, they all were being used or were low on fuel. I told my supervisor. His advice: Figure something out and get the radar up and running.

I returned to the flight line, and that's when the solution—an aircraft fuel truck—drove by. "This is perfect timing," I thought. "I need fuel, and there is the fuel truck pulling up to the aircraft that I'm working on." After a quick discussion with the civilian driver and the plane captain, who was getting ready to fuel the aircraft, I pulled the over-wing fill-hose from the truck's reel and started pumping the eight gallons of fuel I needed to fill the NC-8's tank. While filling the tank, I remembered that, even though I had my cranial on, my goggles were protecting my forehead, not my eyes. I reached up to pull them down.

With one hand on the inch-and-a-half fuel-nozzle trigger and the other on my goggles, I heard the truck's motor speed up from a very low idle to a higher rpm. A rapid increase in flow from the nozzle followed.

The fuel tank began overflowing in a matter of seconds. Fuel was flowing at 50-plus psi from the nozzle. Meanwhile, I desperately was trying to keep the nozzle in the tank, as I worked to

get my gloved hand out of the trigger guard and away from the trigger. Finally, the flow pressure pushed the nozzle out of the tank. I was able to release the trigger but not before a fountain of fuel sprayed the NC-8, the fuel truck, the top and sides of the aircraft, and me.

By this time, instinct and previous hazmat training had taken over. I was doing everything I could to keep my eyes shut, sticking my arms over my head and face to keep the fuel and hose from hitting my face. After yelling for someone to get me to the emergency shower, two of my shipmates grabbed me by the arms and guided me away. I scrubbed for 45 minutes (with three bars of soap) in the open-air shower before the squadron corpsman declared me clean enough to get in the ambulance for a ride to the local hospital. Later, I found out he was concerned about my getting in the ambulance because of the possible hazardous reaction between the fuel and the oxygen tank.

I spent the next four hours getting scrubbed and checked to ensure that all the fuel was removed and that I had no chemical burns. I also was examined to ensure that I had not ingested any fuel. Medical gave me a 48-hour SIQ chit, which kept me out of the sun (and the weekend fun).

THE AFTERMATH of the events were a long series of discussions (most were one-way) with the AT shop LPO, Av-Arm division LCPO, Maintenance Master Chief, and division and safety officers. I also got a lecture from the MO about how to correctly fuel SE.

Although the command and the NAS Key West fuel and SE departments did not blame me for the mishap, I feel it was my fault. I should have made it clear to my supervisor that the safest and best course of action would have been to take time to fuel at the SE station, even if it had caused the flight to be pushed back or canceled. A scrubbed or delayed flight would have been better than my fuel shower in paradise, with 50 gallons of spilled fuel on the ground. As a result, hundreds of man-hours were spent cleaning up the spill, and maintenance had to complete an unscheduled aircraft wash. And, oh yeah, I had to drop 50 bucks on a new uniform. 🍀🍀

Chief Steiner was assigned to VFA-83 at the time of this incident. He is the AE branch chief at VFA-192.

The Hazards of a Green Deck



Navy photo by Lt. Scott Miller



By AM2 John Curtis

The ship recently had come out of the shipyard and was conducting flight operations for the first time in more than four years. It was another beautiful day at sea aboard one of our nation's finest aircraft carriers.

Our squadron, VAW-123, had a small maintenance detachment aboard to support flight-deck certification and carrier qualifications. Another E-2C Hawkeye squadron and a C-2A Greyhound squadron also were conducting carrier qualifications. I learned quickly that three squadrons of big-wing, prop aircraft—all conducting simultaneous shipboard operations—significantly increase the risks of working on the flight deck.

Although I'm a Hawkeye maintainer, at the time of the incident, I was assisting as a final checker for a Greyhound that was preparing to launch. Since E-2C

and C-2A aircraft are similar airframes, final checkers from embarked E-2C squadrons qualify on both aircraft and help with C-2A man-ups and launches.

The C-2A plane captain gave the "up and ready" signal to the ABH and relinquished control of the aircraft. The yellowshirt waited for aircraft 602, an E-2C, to trap. When the deck was clear, he signaled for us to pull chocks and chains. The C-2A began to taxi out of the "hummer hole" and forward into the "street" (the area in front of the island). As a safety precaution, final checkers stand "prop guard" while E-2Cs and C-2As taxi, ensuring all hands remain clear.

While the Greyhound was coming out of the "hummer hole," 602 taxied from the landing area and turned aft to park. As a result, two spinning props were heading toward each other, and, apparently, neither ABH was aware of the other's actions. As the two aircraft started closing on one another, I saw the starboard prop of 602 heading straight toward the ABH controlling the C-2A. I immediately ran over and pulled him away from the spinning propeller.

Though I have been in the Navy for five years (including two deployments), I never had seen someone come so close to being hit by a prop. This incident was a sobering reminder of why "prop guards" on the flight deck are so important.

When a carrier has been in the shipyard for an extended period of time, the flight-deck crew loses its proficiency in handling aircraft. Even with TAD stints to operational ships to maintain certification, it takes time for any crew to regain that proficiency.

All crew members on the flight deck must maintain SA—for themselves, as well as others—at all times. 🦋🦋

Petty Officer Curtis works in the airframes shop at VAW-123.

The Risk of the Routine

By AT2 David Noble

One third of the way through deployment, our HSL detachment aboard a *Ticonderoga*-class cruiser was firing on all cylinders. The night shift started out routinely: Launch the helicopter at 1600 and recover it at midnight. Like many nights, with our SH-60B airborne, executing its mission, the tasking in our maintenance shop was light. It appeared this night would be uneventful.

When the aircraft landed, we geared up for the usual engine water-wash, straighten, fold, and traverse evolutions. This sequence, although consisting of many moving parts, had become routine. We had done these procedures (sometimes twice a day) for more than a month. “Let’s get this done as soon as possible” had become the standard. Unfortunately, this complacency turned out to be the main ingredient in a recipe for disaster.

We had completed the engine water-wash and were starting the straightening evolution when the flight-deck director (FDD) tasked a junior airman and me to remove the chocks and chains on the port side of the aircraft. I’d done this simple task every night for the last month. What could go wrong? The critical change of adding a new partner for the evolution seemed insignificant to me—I just went on with my usual routine.

We were down to one of the last aircraft-straightening steps: aligning the tail wheel over the flight-deck track-slot. The FDD (a junior petty officer in training, shadowed by the LPO) directed the flight-deck crew to remove chocks and chains. I ran to the main-mount chains, released the locks, and, to save time, flipped the outboard hooks of the chains in the pad-eyes, while jerking the leading edge of the chain toward my blind side. Not realizing my partner was directly behind me, I swung the locking mechanism directly toward his face.

It took a few seconds to understand what I just had done. The chain hit him square in the mouth, cutting open his lip and knocking out a tooth. I dropped the chains and quickly tended to my shipmate. I simultaneously yelled to the FDD, “Hold on—stop!” yet no one on the starboard side heard my call for help.

The FDD proceeded to move the aircraft with the port chock in place. I quickly removed the remaining

chock and returned to the injured airman. Meanwhile, the FDD finished moving the aircraft and secured it at the flight-deck maintenance line.

Another maintainer, working on the opposite side of the aircraft, caught a glimpse of my injured shipmate lying face down and yelled, “Man down!” The FDD secured the aircraft and checked my partner for disorientation and head/neck injuries. We discovered that two more teeth had been damaged severely.

The severity of this situation hit me when we lined up for a FOD walkdown. Typically, we do these procedures before each flight, ensuring there is no debris to cause a hazard to the aircraft or personnel when the rotors are engaged. This time, however, we were looking for pieces of my friend’s missing teeth on the flight deck. We found a front-upper tooth and the cap to another in pools of blood. In an effort to salvage the teeth he had lost, we rinsed both pieces of FOD and placed them in a MAF bag.

My carelessness caused my friend to endure two major dental reconstructions, including implants. He also missed two weeks of work while temporarily assigned to the aircraft carrier for follow-on care.

Complacency kills, or in this case, it wounds. The fact that we do the same thing repeatedly doesn’t make it any less dangerous or right (after all, there is such a thing as a “perfect mistake”). Second, I failed to alert the flight-deck crew of the man-down situation. I should have run to the other side of the aircraft immediately and stopped the evolution, ensuring that every member of the crew knew we had a man who needed help. Third, crew coordination is vital. My partner and I could have avoided this hazard by briefing the evolution before starting the task.

Petty Officer Noble works in the AT shop at HSL-49.

Analyst comment: Moving aircraft without everyone’s verification that chocks and chains are removed is, as this story points out, very dangerous. If positions on the deck preclude direct, line-of-sight communication between the FDD and crew, you should discuss relay signals during the brief.

Senior Chief Crook is a maintenance analyst at the Naval Safety Center.

Navy photo by MCSN John Scorza

AME3 vs. an



Navy photo by MC3 Jon Hyde

800-Pound Gorilla

By AME3 Ryan Tull

The squadron had been deployed aboard USS *John C. Stennis* (CVN-74) for about three months. We had been working hard to keep aircraft maintained for flights. This particular day was my squadron's LOX-duty day. We had finished servicing the aircraft LOX converters on the flight deck and had brought the empty LOX-servicing cart down to the N2/O2 plant in the hangar bay to be filled.

When I got word that the LOX cart was ready to be picked up, I quickly went down to get it. As I arrived, I saw that aircraft elevator No. 1 had been lowered; planes were being towed onto it for movement to the flight deck. Some other mechs almost had finished positioning the aircraft when my maintenance-control chief saw me and said we needed to hurry and get the LOX-servicing cart onto the elevator. This would be our last chance to get the cart back to the flight deck for the night.

I rushed to the N2/O2 plant, opened the hatch, and started preparing to move the LOX cart. The hatch between the plant and the hangar bay has a coaming, requiring a ramp to move the LOX cart up and over the ledge. The hatch doors stick out about two and a half feet on each side of the hatch, giving the LOX cart very little clearance to turn, once through the hatch. I noticed there was a flight-deck "scrubby" parked in the hangar bay about five feet outside the hatch, reducing the space available to maneuver the cart. I had seen support equipment parked there many times before and had mentioned this hazard to the LPO in charge. He had taken note of it but had done nothing to fix the situation. Being in a hurry, I didn't address the lack of maneuvering space; instead, I went to get the cart.

Once the turnover was complete with the servicing personnel, an MM3 and I started pushing the LOX cart out of the plant. This job requires at least two people, because the cart weighs 800 to

900 pounds when full. We pushed it up one side of the ramp and over the ledge of the coaming. As the cart moved back down the other side of the ramp, I realized it quickly was picking up speed, rolling at the "scrubby."

I tried to stop the cart before it collided, but it had too much momentum and was way too heavy. Before I could get out of the way, my left hand was crushed between the tow link of the LOX cart and the "scrubby." I realized the MM3 had let go of the cart at the top of the ramp but hadn't warned me to get out of the way.

I pulled my hand free and saw blood running down my arm. My hand swelled rapidly. I immediately went to medical, where a corpsman treated my injury. X-rays showed that my hand wasn't broken. The laceration required seven stitches between my ring finger and pinkie and down my palm. My hand had swollen to almost twice its normal size and had turned black and blue.

BECAUSE OF THIS MISHAP, my shop was down one maintainer, and my squadron had one less CDI working on the flight deck. I was on LIMDU for a month, unable to use my left hand. Also, I missed the liberty activities I had planned for our upcoming, four-day port call.

This whole problem could have been avoided by using better ORM. If I had taken a little more time and not worried about catching the elevator up to the flight deck, I could have addressed the issue of having enough space to maneuver the LOX cart. I also could have been more persistent in addressing the hazard area beforehand. The issue could have—and should have—been fixed before it contributed to an injury. Since my incident, the chain of command has worked to expand the LOX area in the hangar bay and to keep support equipment farther away from the N2/O2 plant. 🦋🦋

Petty Officer Tull works in the AME shop at VAW-112.

Maintainers in



A plane captain cleans an FA-18C Hornet assigned to VFA-195 aboard USS *George Washington* (CVN-73). Navy photo by MCSN Jacob D. Moore.



LCpl. Aaron Neal and LCpl. Eddie Tapia, assigned to VMA-311, prepare an AV-8B Harrier engine to be reinstalled into a Harrier after maintenance in the squadron's hangar at MCAS Yuma. Marine Corps photo by LCpl. Austin Hazard.



AM1 Lawrence Smathers, right, instructs AM3 Adam Lawrence while doing maintenance on an SH-60F Sea Hawk helicopter aboard USS *Blue Ridge* (LCC-19). Both Sailors are assigned to HSL-51. Navy photo by MC2 Cynthia Griggs.

in the Trenches



Aviation ordnancemen aboard the aircraft carrier USS *Nimitz* (CVN-68) attach a cargo pendant to an MH-60S Sea Hawk helicopter assigned to HSC-23 during a vertical replenishment with USNS *Bridge* (T-AOE-10). Navy photo by MC3 John Phillip Wagner Jr.



AD3 Galen Hannah applies erosion film on the propeller blade of an E-2C Hawkeye assigned to VAW-113 aboard USS *Ronald Reagan* (CVN-76). Navy photo by MC3 Torrey W. Lee.



Marines assigned to VMA-211 load ordnance on an AV-8B Harrier in preparation for amphibious operations during Talisman Saber 2009 off the coast of Queensland, Australia. Navy photo by MCC Ty Swartz.

A Painful Reminder

By AE3 Christopher Loff

Thursday was a typical summer fly-day at “Fighting Two.” I had no idea I’d nearly lose a finger before the day was over. I was helping fellow maintainers with a maintenance ground-turn, preparing for an A-profile FCF—something I had done many times in the past. In this case, the holes of the Swiss cheese quickly lined up.

I had been working in the AE shop that morning when several of us were called to the flight line to help with an external power gripe on aircraft 110. By the time we arrived, the problem had been resolved, but another AE and I stayed to help with the ground turn. Since maintenance personnel were doing the turn instead of

aircrew, when it came time to drop the tailhook, the plane captain hadn’t removed the safety pin for the tailhook.

I stood back and watched while two of my shipmates wrestled with the tailhook safety pin, pushing up on the shaft. I thought, “That doesn’t look safe. You wouldn’t catch me messing around with that.” I should have spoken up at that moment and stopped them.

Once the safety pin had been removed and the tailhook was extended to the ground, I made sure the PC knew I was going to approach and inspect the tailhook. He signaled that he understood, and I did the inspection, looking for any damage. As I bent down at



I thought, “That doesn’t look safe. You wouldn’t catch me messing around with that.”



I should have spoken up at that moment and stopped them.

the forward-most end of the tailhook, it suddenly raised and caught me off guard. My initial reaction was to do as I had been trained and grab the shaft of the tailhook, while shaking it laterally to make sure the centering cylinder was operating correctly. That practice is not protocol. Rather, it’s an old habit I had learned from a previous maintenance tour on older FA-18s—one that doesn’t apply to the FA-18Fs in VFA-2.

I was closer to the pivot point than I normally would have been on a final check, so my reaction was the wrong one. Like every work-related accident I have heard of, the situation developed fast. *The little finger on my left hand was three-quarters inch too far forward on the tailhook, and it got pinched between the shaft and the up-stop cushioning pad.*

THE NEXT FEW SECONDS were surreal. Realizing that I couldn’t remove my hand (and that none of the maintainers nearby were aware of my plight) shocked me more than the pain did. Once hydraulic pressure was released, I was able to remove my hand and inspect the damage.

I was expecting worse than what I saw, but it still wasn’t pretty. I was wearing gloves, and the cushioning pad is made of semi-soft material, not metal. Otherwise, I would have one less finger on my left hand, and this article would have been typed via the two-finger method. I ended up with 12 stitches, a lot of pain, embarrassment, and the kind of attention that, as a maintenance professional, you never want.

I would like to say that my injury was necessary to accomplish a critical mission, but it wasn’t. A routine ground-turn (coupled with inattention, haste, and poor communication) turned nearly disastrous for this humbled AE. The only positive outcome of this incident was my relearning of three important safety principles:

If you’re around equipment that isn’t working right, stay clear.

We are all safety observers. If you witness an operation that doesn’t pass the “smell” test, stop it and assess the situation.

The tailhook should be treated like any other moving surface during operation: Look, but don’t touch. 🙅🙅🙅

Petty Officer Loff works in the AE shop at VFA-2.



New Automatic Test Equipment for Marine Corps Maintainers

The new reconfigurable and transportable, consolidated, automated support system (RTCASS) is arriving at Marine Corps air stations around the world.

RTCASS is a piece of state-of-the-art automatic test equipment that runs more than 750 weapons-repairable assemblies (WRAs) and circuit cards. It was designed specifically to support deploying Marine Corps aviation units.

"The Marines needed automated test equipment to keep their aircraft and helicopters flying. The system had to be just as capable as standard CASS stations used on aircraft carriers and Navy shore stations but smaller and lighter," said Cdr. Bob Stailey, CASS officer at PMA-260. According to Stailey, "RTCASS fills that requirement."

A primary advantage of RTCASS is that it's man-transportable, and the weapon-system test-program software now can be stored and sent via a single

DVD. "All test programs also now can be stored on the system's main computer," said Stailey. "Standard CASS requires an expensive magneto optical disk for each test program, and the CASS can store only two or three test programs on its computer at a time."

The first production RTCASS stations came online in June. RTCASS is now operational at the following units: MALS-14 (MCAS Cherry Point); MALS-13 (MCAS Yuma); and MALS-26 and MALS-29 (MCAS New River). MALS-31 (MCAS Beaufort) and MALS-12 (Iwakuni, Japan) will be the next sites to stand up.

RTCASS supports the MV-22 Osprey, AV-8B Harrier, FA-18 Hornet, and EA-6B Prowler. It also soon will support the Huey and Super Cobra.

RTCASS will be installed at the remaining Marine Corps air stations in a phased approach, running through the fourth quarter of 2010. ✈

Article provided by Rob Koon, AIR 1.0 public affairs officer.

SSgt. Erskine Goodman loads an aircraft avionics tester on the RTCASS station.

Sailors and Marines Preventing Mishaps **BRAVO Zulu**

Send BZs to: SAFE-Mech@navy.mil



AWSC(NAC/AW/SW) Jeffrey S. Smith HSC-22

Chief Smith was preflighting Crusader 00 when he noticed excessive movement during a “teeter test” (a test for delamination, spar integrity, and retention-plate clamp-up) on one of the tail-rotor blades. He informed Maintenance Control, and maintainers then removed the blades. They found severe delamination of the carbon-fiber spar that holds together the blades. When mounted to the aircraft, the damaged spar wasn’t visible and easily could have been overlooked.





AD3 Shane Smith
HSL-43 Det. 6

Petty Officer Smith, a plane captain with HSL-43 Det. 6 aboard USS Sampson (DDG-102), noticed a loose fire-extinguisher line during a daily inspection of Battle Cat 22. He had been inspecting around the forward-firewall area of the No. 1 engine. There is no step in the daily “deck” requiring an inspection of the fire-extinguisher line. Petty Officer Smith found a crack in the line where it attaches to the engine intake. He told Maintenance Control and initiated a MAF to have the problem corrected.



AM2 Ryan Allchin
HSL-49 Det. 5

Petty Officer Allchin found three loose fasteners on Desert Hawk 73's tail gearbox fairing during a passenger transfer. He notified the helicopter aircrewman, and the aircraft was shut down immediately to secure the fasteners. Had it not been for Petty Officer Allchin's discovery, the cowling on the gearbox fairing could have separated from the aircraft in flight.



AE1 Joshua Deitrick
VAW-117

While serving as QAR for the recovery of Banger 602, Petty Officer Deitrick saw an aircraft director taxi an FA-18 across cat 2, directly toward a Hawkeye plane captain. Petty Officer Deitrick quickly placed himself between the FA-18 and the plane captain and signaled the aircraft director in time to stop the hazardous situation.

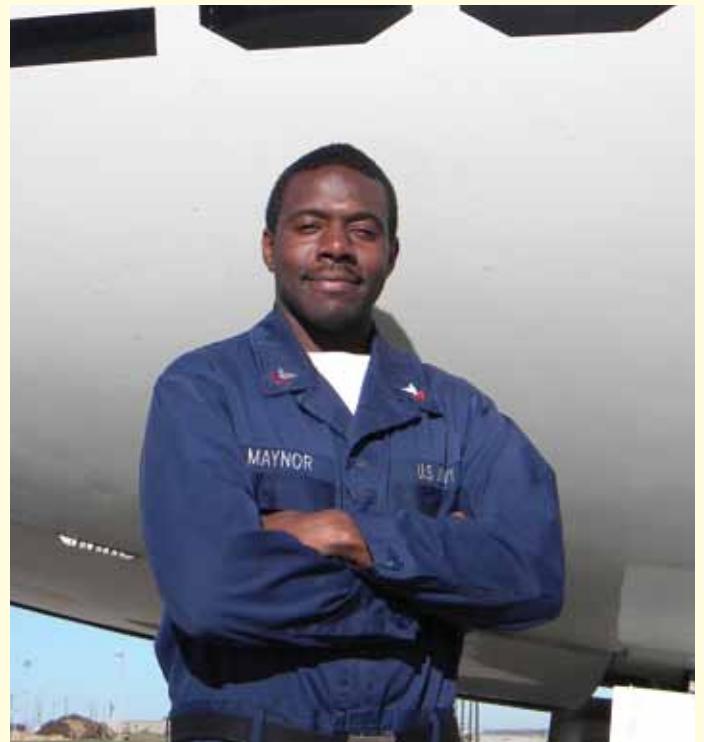
AD2 Julian Lucero
VFA-115

Petty Officer Lucero was doing maintenance on an FA-18E Super Hornet aboard USS *Ronald Reagan* (CVN-76) when he decided to go the extra mile by running an engine fuel-shutoff test on both engines. That test is only required for an engine removal. His vigilance exposed a failure of the starboard engine's fuel-shutoff valve. Had the faulty valve gone undetected, it could have prevented the pilot from shutting down fuel flow to the engine during an in-flight emergency.



AT2 Duc Duong
HSL-43

While doing final checks on the ASW system of Battle Cat 24 in support of the following week's ASW exercise, Petty Officer Duong noticed several loose nuts and bolts on top of the fuel cell. Further investigation revealed the aft cabin's vibration absorber had detached from all but one anchor point and was resting on top of the soundproofing below. Although minor damage already had been done to the other mounting areas, his actions prevented further damage to the aircraft.



AM2 Edwin Maynor
VR-46

While preparing for a 2,000-hour inspection of the jackscrew mechanism on aircraft 266, Petty Officer Maynor removed a panel to access hardware associated with the inspection. That action, although not related to the inspection, revealed a faulty bearing on the port-elevator torque tube. The bearing's seal had dislodged from the brace, and the bearing assembly had become dry and corroded.



Cpl. Julian Valencia
HMH-363

Corporal Valencia's work ethic paid dividends during a turnaround inspection of Red Lion 20. Besides inspecting just the required items, he also checked the surrounding areas and found a crack on the transition section (in the vicinity of the tail-rotor pylon disconnect). Had this 4-inch-long crack (running along the framing and through several rivets) gone undetected, a mishap could have occurred. The aircraft underwent extensive repair work to fix the discrepancy found by this Marine.



AM2 Clint Rise
VP-4

This maintainer was working on multiple corrosion-treatment MAFs for aircraft 521 when he saw that one of the attached rods on the starboard aileron trim-tab was seated lower than the corresponding one on the port side. Further investigation revealed the attaching hardware was not installed, which had caused the rod to wear down the trim-tab skin. There also was evidence of binding. Petty Officer Rise told his work-center supervisor and ensured this major discrepancy was repaired, thus preventing the loss of a critical flight-control system.



AD2 Cesar Navarro
VP-45

During a command FOD walkdown, Petty Officer Navarro found a small piece of rubber in front of the No. 4 propeller on aircraft 158923. Closer inspection revealed a crack on the No. 4 propeller blade. He promptly reported this problem to his chain of command, and Maintenance Control downed the aircraft. If it had gone undetected, this crack could have led to the separation of the leading and trailing edges of the propeller's heater boot.

Airframes

Safety Wire Is Consumable (But Aircraft Aren't)

By GySgt. Edward Rivera

Problem: Lots of units we survey have problems tracking consumables.

Solutions: Consumable items should be treated just like tools. You wouldn't "not account" for tools when working on aircraft, would you?

Then why not give the appropriate attention to the tape, scrapers, brushes, and sundry consumable items used in the squadron everyday? After all, when we're talking FOD, an acid brush is just as dangerous as a wrench or screwdriver.





Still not convinced? Check out COM-NAVAIRFORINST 4790.2A, Chapter 10, para. 10.12.6.3, which reads: “Ensure consumable materials not included on the tool container inventory, such as safety wire, electrical tape, and acid brushes, are accounted for prior to and at the completion of each task. Tool containers shall not be used for hardware storage.”

Best Practices: Using your tool logbook, annotate the quantity and name of the consumable items used for each task. It’s also a good idea to store consumables in well-organized lockers and/or shelves (as shown in the enclosed photos). Maintain these storage areas just like you would your pre-ex bin.

Gunnery Sergeant Rivera is a maintenance analyst at the Naval Safety Center.

Safety Conference

8th Annual Aviation-Maintenance Safety Conference in March

By Cdr. David Peacott

With spring just around the corner, I’d like to invite all Navy and Marine Corps maintenance, quality assurance, and safety professionals to the Eighth Annual Aviation-Maintenance Safety Conference. This year’s event will be held March 2 through 5 at Vista Point Conference Center, located at 1754 Massey Hughes Dr., Bldg. Q-88, at Naval Station Norfolk.

We hosted more than 150 people from Navy and Marine Corps units worldwide last year. And we hope this year’s gathering will be even larger. The goal of the conference is to raise safety awareness and to improve readiness and mission accomplishment fleetwide.

Besides showing NSC products and presentations, this conference offers one of the few opportunities to share and distribute a broad range of aviation-maintenance information to fleet professionals. Topics this year will include feedback about the aviation-maintenance program; future

procurement updates; NAVOSH, WESS, and ORM program-guidance information; and suggested tools and best practices. Several vendors will showcase new products for the naval-aviation community.

The conference will be limited to 200 people, so reserve your seat as soon as possible. Register by logging onto www.safetycenter.navy.mil, click on the aviation menu (maintenance link), and click on Register Here. You also may register by calling or e-mailing any NSC Code 12 representative. Our phone number is (757) 444-3520 (DSN 564). Registration deadline is Feb. 19, 2010.

A non-refundable fee of \$45 will be collected by MWR on the first day of the conference. This fee covers a continental breakfast, snacks and drinks each day of the conference.

Hope to see you there. Keep your head on a swivel.

Cdr. Peacott is the Naval Safety Center’s maintenance officer.

Corrosion or Explosion: Which Is Worse?

By AMEC(AW) Eric Wickham

Problem: NVG systems stored with batteries still installed.

If discharged too far, “AA” alkaline batteries start corroding internally. If a battery corrodes enough, the outer shell can breach, causing electrolytes to leak out and damage battery-powered devices. Avoid this problem by removing batteries from devices that are going to be unattended for long periods of time. The electrolytes also can cause minor skin damage, destruction of eye tissue, and severe internal irritation and damage if ingested.

Lithium batteries also are problematic. They produce extremely high currents and can discharge rapidly when short-circuited. The rapid discharge of a lithium battery can cause it to overheat, rupture and even explode.

Solution: Follow published guidelines—a responsibility of all hands. Also ensure batteries (and battery-powered equipment) are stored cor-



rectly. For example, in the NAVAIR 16-35AVS9-4 WP 004 00, paragraph 12 requires us to remove batteries from NVG systems after use. Also, in WP 005 00, a caution states, “Never store the AN/AVS-9(V) with the batteries installed.”

Chief Wickham is a maintenance analyst at the Naval Safety Center.

Quality Assurance

The NAMP: It Is a-Changin’

By GySgt. Todd McCreight

The recent release of change No. 2 to COMNAVAIRFORINST 4790.2A contains a few noteworthy items:

- Training requirements for personnel authorized “safe for flight” have been updated. Maintenance officers are required to ensure this training is accomplished.
- The updated instruction identifies the new location of the mission-essential subsystems matrix/matrices on the COMNAVAIRFOR website.
- There are new requirements for Maintenance-Control personnel wishing to attend the

Naval-Aviation Maintenance-Control Management course (D/E 555-0040).

- There are new requirements to add photocopies of assembly service records (ASRs), equipment-history records (EHRs), and scheduled removal component (SRC) cards to the outsides of shipping containers.

If you haven’t reviewed the new change 2 in its entirety, you should.

Gunnery Sergeant McCreight is a maintenance analyst at the Naval Safety Center.

Logs and Records

Technical Directive (TD) Technical Fouls

By GySgt. Robert Linn

Problem: Too often, I discover that the minimum Technical Directive (TD) program elements are not maintained. Here are common discrepancies:

- TDs are not completed within the specified timeframes.
- Outstanding TD reports are not updated in NALCOMIS.
- The 500C isn't on file or isn't used for screening.

Solutions: How to get back on track (and stay there):

- Do an audit of the TD program. Make sure all TDs are current; if they have passed their compliance timeframe, request a deviation. Also, do a complete TD verification on all aircraft and equipment upon acceptance and transfer (per CNAF 4790.2A, Change 2, Chapter 10, para. 10.10.3.9.1).

Keep a record of all the outstanding TD timeframes (this will help keep you aware of when TDs are coming due or are past compliance). Inform I- and/or D-level activities of any TDs they will need to comply with before aircraft/equipment can be sent back to your unit.

- Once you have accounted for all outstanding TDs, make sure your outstanding report matches the corresponding report in NALCOMIS.

- Maintain a 500C baseline in the historical file, and keep the most current 500C in the TD section of the logbook.

Best Practices: Besides following the earlier advice, it's also a good idea to make the TD program coordinator a primary duty (versus collateral one). That way, the TD program receives the attention it deserves.

Gunnery Sergeant Linn is a maintenance analyst at the Naval Safety Center.

Tool Control

When It Comes to Broken Tools: Document, Document, Document

By GySgt. John Hess

Problem: Four out of nine squadrons we've surveyed in the past few months weren't doing a very good job accounting for broken or missing tools on their storage sheets. This trend is disturbing.

In one of the worst cases, we found a squadron with broken tools documented on the shortage sheet but no corresponding tool-report number or document number. Further investigation revealed that the tools hadn't been given a broken tool-report (BTR) number, nor were they documented in QA. Because of this huge oversight, the squadron had to cancel the flight schedule and recall aircraft.

Solutions: According to the pubs (COM-NAVAIRFORINST 4790.2A, Rev A, change 2, Chapter 10, para.10.12.6.5), tool-container shortage lists shall be used to annotate the following: tool-report number received from QA, the document number for tools on order through SERVMART or supply, and the date the tools were replaced. Shortage lists also shall be used to list tools that were removed for calibration.

Filling out storage sheets properly and keeping the information current will help prevent major issues.

Gunnery Sergeant Hess is a maintenance analyst at the Naval Safety Center.

Class C Mishap

By MSgt. Michael Austin

From Sept. 2, 2009, to Dec. 1, 2009, the Navy and Marine Corps had 32 Class C mishaps involving aircraft. A preliminary review of these 32 mishaps indicates 14 (43 percent) of them were maintenance-related.

Causes included various supervisory, maintenance and material casual factors, most of which could have been prevented by ORM and better situational awareness (SA). Below is a list of the recent, avoidable, maintenance-related Class C mishaps:

1. FA-18F: M61 gun damaged during removal for phase maintenance.
2. C-130T: Prop blades on the No. 2 engine damaged when an unsecured oil-serving panel departed aircraft.
3. C-9: Aircraft rolled into fence during aircraft move.
4. FA-18C: Forklift driven into port horizontal-stabilizer.
5. FA-18C: Tow tractor driven into port horizontal-stabilizer.
6. FA-18E: Electric cart driven into the side of the aircraft.
7. MH-60S: Tail rotor hit the ship's bulk-head during an aircraft move.
8. MH-60S: Aircraft swash plate damaged after hitting the forward bridge during a flight-control-system troubleshooting procedure.
9. MH-60S: Main rotor blades damaged during a maintenance blade-fold procedure.
10. FA-18C: Left aileron was damaged when aircraft was pushed into a Belknap pole during a flight-deck aircraft move.
11. EP-3E: Aircraft flaps were damaged when they were lowered onto a maintenance ladder.
12. SH-60F: Tow tractor collided with the tail stabilizer.
13. SH-60B: Aircraft swash plate damaged during maintenance.
14. FA-18E: Port horizontal-stabilizer damaged by ordnance delivery truck.

IS EVERY Class C mishap avoidable? Yes, especially when it involves maintenance-directed movements and procedures. Nine of 14 Class C events (listed above) involved SE; that's 62 percent of the Class C mishaps from this reporting period. Seven of them involved moving or towing aircraft.

All the procedures and planning direction for aircraft moves are clear. But, problems often arise when maintenance evolutions transition into the time-critical phase, when the line between a safe operation and a potential mishap increasingly is blurred. Add poor supervision and bad SA to the mix, and the result is an excessive amount of maintenance-related mishaps (about one per week or one for every 150 hours, last I checked).

Here are two recent scenarios:

An FA-18C was parked and secured on the far end of the flight line. Meanwhile, an aircraft maintainer and another technician drove a tow tractor down the center of the flight line, in front of the secured aircraft. Many obstacles littered the flight line (chains, fire bottles, and other support equipment), but the driver of the tow tractor focused his attention on the Halon bottle. When he swerved to the right to miss it, the tow tractor instead hit a bigger, more expensive "obstacle"—the aircraft's port horizontal-stabilizer. The tow-tractor driver had channeled all his attention on the



Summary



primary target (pilots often call this “target fixation”). The damage to the aircraft: a two-inch-by-eight-inch gouge on the outer edge of the horizontal stabilizer.

During shipboard operations, maintenance secured an FA-18C in the hangar bay. After a vertrep, forklift drivers and support personnel distributed equipment to the respective hangar bays. One unfortunate forklift driver focused

his attention on the delivery of pallets and equipment and didn’t pay enough attention to the aircraft secured in the hangar bay. The driver dropped a load of gear and spun the lift around, driving it into the Hornet’s port horizontal-stabilizer. The collision caused extensive damage to the honeycomb structure.

Master Sergeant Austin is a maintenance analyst at the Naval Safety Center and coordinates the Crossfeed section of Mech.

Flight, Flight-Related, and Ground Class A and B **Mishaps**

09/08/2009 to 11/07/2009

Class A Mishaps

Date	Type Aircraft	Command
09/18/2009	T-38C	NAVTESTPILOTSCH
Aircraft departed runway during landing and impacted construction equipment.		

10/26/2009	AH-1W	HMLA-169
Two aircraft crashed in open desert during combat escort. Aircraft destroyed.		

10/28/2009	T-34C	VT-28
Aircraft did not return from day VFR training flight in the local area.		

10/29/2009	AH-1W	HMLA-469
Aircraft crashed into water after midair collision.		

Class B Mishaps

Date	Type Aircraft	Command
09/15/2009	CH-46E	HMM-262
Damage to aircraft discovered during routine inspection.		

09/17/2009	T-45A	VT-21
Aircraft experienced engine overtemp after in-flight compressor stall.		

09/17/2009	FA-18C	VFA-106
Bird ingested into port engine during landing training.		

09/18/2009	EA-6B	VAQ-135
Maintainer was injured when nitrogen hose separated while under pressure.		

09/18/2009	CH-46E	HMH-161
Forward fuselage of aircraft struck power lines.		

09/21/2009	FA-18C	VMFA-323
During maintenance, the ATFLIR and hoisting beam fell to the deck.		

09/29/2009	FA-18F	VFA-122
Starboard engine FODed during in-flight refueling.		

10/25/2009	AV-8B	VMAT-203
Aircraft departed prepared surface during an aborted takeoff.		

10/29/2009	CH-53E	HX-21
Aircraft damaged during tow evolution.		

10/30/2009	TH-57C	HT-8
Aircraft rolled over following a forced autorotation to an unprepared field.		



11/02/2009	FA-18F	VFA-122
Port engine FODed during a ground turn.		

11/06/2009	P-3C	VP-16
ASX-6 turret glass exploded during purging, injuring member.		



Printed as a supplement to *Mech* from
Naval Safety Center Data
Cdr. Paul Bunnell

For questions or comments, call Lt. David Robb
(757) 444-3520 Ext. 7220 (DSN 564)



Helping Sailors and Marines Help Themselves

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Commander, Naval Safety Center would like to recognize the following aviation commands for their recent participation in safety surveys, culture workshops, and maintenance-malpractice resource-management (MRM) presentations for the months of October-December.

Safety Surveys

VFA-15	MCAS Yuma S.A.R.
VFA-87	VMFT-401
VFA-103	MALS-13
VFA-131	MAWTS-1
VFA-32	VMA-211
VAW-125	VT-35
HSM-71	VT-28
HMH-466	VT-31
HMLA-469	VT-27
VMFA-323	VT-21
VMA-311	VT-22

MRMs

HSC-2

Culture Workshops

VMGR-252	VT-86
VR-62	VFA-83
VAQ-142	VP-8
VP-5	HMH-363
VAQ-130	HSM-77
HS-5	VFC-111
VAW-125	VAQ-139
VFA-131	VFA-151

For more information or to get on the schedule, please contact: Safety Surveys: Maj. Anthony Frost, USMC at 757-444-3520 Ext. 7223, MRM: AMCS(AW) James Litviak at 757-444-3520 Ext. 7276, Culture Workshop: Cdr. Duke Dietz at 757-444-3520 Ext. 7212.

BEWARE OF
JET BLAST
PROPELLERS
AND ROTORS

